We Claim:

1. A method of automatically detecting fiber cabling errors in an optical network comprising:

detecting current fiber connectivity between optical nodes in the network;

storing information regarding the current fiber link connectivity;

detecting any cabling changes; and

determining the impact of the cabling changes on service through the network.

2. The method as defined in claim 1 wherein the step of determining impact on services supports the step of directing operator resolution of errors caused by the cabling changes.

3. The method as defined in claim 2 implemented by an element management system (EMS) within a node.

4. The method as defined in claim 2 implemented within a network management system (NMS).

5. The method as defined in claim 2 implemented within an operations support system (OSS).

6. The method as defined in claim 2 implemented in a combination of EMS, NMS and OSS.

7. The method as defined in claim 1 wherein current fiber connectivity and any cabling changes are displayed on a graphical user interface (GUI).

8. The method as defined in claim 7 wherein the GUI displays a correlation between optical nodes in the network and fiber connectivity.

9. The method as defined in claim 7 wherein the GUI displays cross-connection impacted by a cabling change.

10. The method as defined in claim 7 wherein the GUI displays lightpaths impacted by a cabling change.

11. The method as defined in claim 7 wherein any cabling change must be approved by an operator before initiation of the change.

12. A system for automatically detecting fiber cabling errors in an optical network comprising.

an automatic optical link detection module to detect connectivity between optical nodes in the optical network;

an automatic cabling change detection module for storing initial fiber link connectivity and detecting any cabling changes; and

a cabling change impact and resolution module for determining impact of any cabling change.

13. The system as defined in claim 12 wherein the cabling change impact and resolution module supports operator directed resolution of cabling changes.

14. The system as defined in claim 12 having a graphical user interface (GUI) for displaying initial connectivity and cabling changes.

15. The system as defined in claim 12 wherein the modules are implemented in software at an element management system within the network.

16. The system as defined in claim 12 wherein the modules are implemented in software at a network management system.

17. The system as defined in claim 12 wherein the modules are implemented in software in an operator support system.

18. The system as defined in claim 12 wherein implementation of the modules is distributed through the network.

19. The system as defined in claim 14 wherein a link management protocol (LMP) is used to communicate data between modules.